

# 1. Introduction

## 1.1 What is a Shapefile?

A shapefile is a geospatial data format for use in geographic information system (GIS) software. Shapefiles spatially describe vector data such as points, lines, and polygons, representing, for instance, landmarks, roads, and lakes. Esri created the format for use in their software, but the shapefile format works in additional GIS software as well.

## 1.2 What are TIGER/Line Shapefiles?

The TIGER/Line Shapefiles are the fully supported, core geographic product from the U.S. Census Bureau. They are extracts of selected geographic and cartographic information from the U.S. Census Bureau's Master Address File/Topologically Integrated Geographic Encoding and Referencing (MAF/TIGER) database. The shapefiles include information for the fifty states, the District of Columbia, Puerto Rico, and the Island areas (American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the United States Virgin Islands). The shapefiles include polygon boundaries of geographic areas and features, linear features including roads and hydrography, and point features. They do not contain any sensitive data.

## 1.3 Relationship of the TIGER/Line Shapefiles to Census Statistical Data

The TIGER/Line Shapefiles contain a standard geographic identifier for each entity that links to the geographic identifier in the data from censuses and surveys. They do not include demographic data from surveys and censuses, such as the Decennial Census, Economic Census, American Community Survey, and the Population Estimates Program. Other, noncensus, data often has this standard geographic identifier as well. Data from many of the Census Bureau's surveys and censuses, including the geographic codes needed to join to the TIGER/Line Shapefiles, is available in American FactFinder (<http://factfinder2.census.gov>). For more information regarding the geographic entity codes, please refer to Section 2.2.7 Codes for Geographic Entities. For guides on using data from American FactFinder with the TIGER/Line Shapefiles, please see our help documents: <http://www.census.gov/geo/education/howtos.html>.

In addition to the TIGER/Line Shapefiles, the Census Bureau creates additional shapefiles and geodatabases that include demographic data. These are as-is products and are created by Census Bureau staff as time permits. All shapefiles and geodatabases that have been pre-joined to demographic data are available at:

<http://www.census.gov/geo/maps-data/data/tiger-data.html>.

## 1.4 History and Sources of TIGER/Line Files and Shapefiles

The first release of the TIGER/Line Files was in 1989. These files provided the first nationwide street centerline coverage of the United States, Puerto Rico, and the Island Areas in a series of ASCII format fixed tables or record types. Initially, the Census Bureau used the U.S. Geological Survey (USGS) 1:100,000-scale Digital Line Graph (DLG), USGS 1:24,000-scale quadrangles, the Census Bureau's 1980 geographic base files (GBF/DIMEFiles), and a variety of miscellaneous maps for selected areas outside the contiguous 48 states to create the TIGER database (predecessor to the current MAF/TIGER database). Periodic versions of the TIGER/Line Files were released throughout the 1990s and 2000s in ASCII format. Beginning with the 2007 version, the format of the TIGER/Line Files changed from the ASCII file format to shapefile.

The Census Bureau continually makes additions and corrections to its database, mainly through partner supplied data, the use of aerial imagery, and fieldwork. The Census Bureau has numerous partner programs where federal, state, and local government partners' supply updates to boundaries, features, and addresses. In the 2000's, the Census Bureau underwent a major realignment of the TIGER database to improve the spatial accuracy of the road network. Since this realignment, the Census Bureau has added quality standards for data sources used to update the MAF/TIGER database.

## 1.5 TIGER/Line Shapefile Legal Disclaimers

No warranty, expressed or implied, is made with regard to the accuracy of the data in the TIGER/Line Shapefiles, and no liability is assumed by the United States Government in general, or the Census Bureau specifically, as to the positional or attribute accuracy of the data. The boundary information in the TIGER/Line Shapefiles is for statistical data collection and tabulation purposes only. Their depiction and designation for statistical purposes does not constitute a determination of jurisdictional authority or rights of ownership or entitlement and they are not legal land descriptions.

TIGER/Line® is a registered trademark of the Census Bureau. TIGER/Line cannot be used as or within the proprietary product names of any commercial product including or otherwise relevant to Census Bureau data and may only be used to refer to the nature of such a product. The Census Bureau requests that any repackaging of the TIGER/Line Shapefile data, documentation, and other files accompanying it for distribution include a conspicuously placed statement to this effect on the product's cover, the first page of the website, or elsewhere of comparable visibility. Further, Census Bureau trademarks, when used in reference to the nature of the product, should be accompanied by the ® (registered) symbol or ™ symbol, where convenient.

## 1.6 Contact and Citation Information

Questions about TIGER/Line Shapefiles obtained from the Census Bureau can be directed to the Geographic Products Branch, Geography Division, U.S. Census Bureau. The TIGER/Line Shapefiles are offered to the public free of charge through the Census Bureau's website. If you obtain the TIGER/Line Shapefiles from a third party, we recommend you contact that vendor for assistance as it is possible that they made changes to the files that we are unaware of or unable to support.

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